# 2SB1462

## Silicon PNP epitaxial planar type

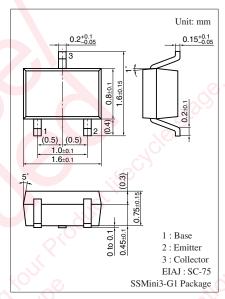
For general amplification Complementary to 2SD2216

#### ■ Features

- High forward current transfer ratio h<sub>FE</sub>
- SS-Mini type package allowing downsizing of the equipment and automatic insertion through the tape packing

### ■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

| Parameter                             | Symbol           | Rating      | Unit |  |
|---------------------------------------|------------------|-------------|------|--|
| Collector-base voltage (Emitter open) | $V_{CBO}$        | -60         | V    |  |
| Collector-emitter voltage (Base open) | $V_{CEO}$        | -50         | V    |  |
| Emitter-base voltage (Collector open) | $V_{EBO}$        | -7          | V    |  |
| Collector current                     | $I_{C}$          | -100        | mA   |  |
| Peak collector current                | $I_{CP}$         | -200        | mA   |  |
| Collector power dissipation           | P <sub>C</sub>   | 125         | mW   |  |
| Junction temperature                  | T <sub>j</sub>   | 125         | °C   |  |
| Storage temperature                   | T <sub>stg</sub> | -55 to +125 | °C   |  |



Marking Symbol: A

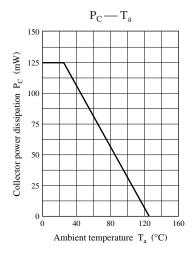
## ■ Electrical Characteristics T<sub>a</sub> = 25°C ± 3°C

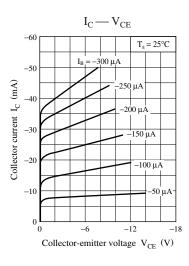
| Parameter   | Symbol               | Conditions  | Min | Тур   | Max   | Unit |
|---|----------------------|---|-----|-------|-------|------|
| Collector-base voltage (Emitter open)                               | V <sub>CBO</sub>     | $I_C = -10 \mu A, I_E = 0$  | -60 | 0     |       | V    |
| Collector-emitter voltage (Base open)                               | V <sub>CEO</sub>     | $I_{\rm C} = -100 \mu\text{A},  I_{\rm B} = 0$                    | -50 |       |       | V    |
| Emitter-base voltage (Collector open)                               | $V_{EBO}$            | $I_E = -10 \ \mu A, I_C = 0$                                      | -7  |       |       | V    |
| Collector-base cutoff current (Emitter open)                        | $I_{CBO}$            | $V_{CB} = -20 \text{ V}, I_E = 0$                                 |     |       | - 0.1 | μΑ   |
| Collector-emitter cutoff current (Base open)                        | $I_{CEO}$            | $V_{CE} = -10 \text{ V}, I_B = 0$                                 |     |       | -100  | μΑ   |
| Forward current transfer ratio *                                    | h <sub>FE</sub>      | $V_{CE} = -10 \text{ V}, I_{C} = -2 \text{ mA}$                   | 160 |       | 460   |      |
| Collector-emitter saturation voltage                                | V <sub>CE(sat)</sub> | $I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$                     |     | - 0.3 | - 0.5 | V    |
| Transition frequency  | $f_T$                | $V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$ |     | 80    |       | MHz  |
| Collector output capacitance<br>(Common base, input open circuited) | C <sub>ob</sub>      | $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$              |     | 2.7   |       | pF   |

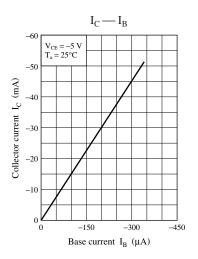
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

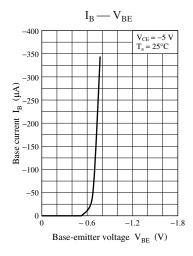
### 2. \*: Rank classification

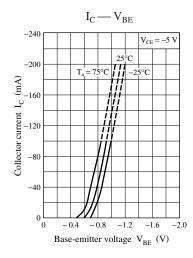
| Rank     | Q          | R          | S          | No Rank    |
|----------|------------|------------|------------|------------|
| $h_{FE}$ | 160 to 260 | 210 to 340 | 290 to 460 | 160 to 460 |

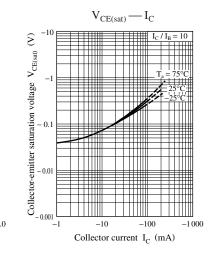


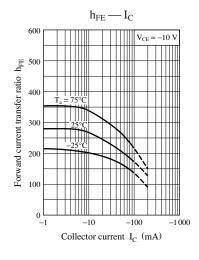


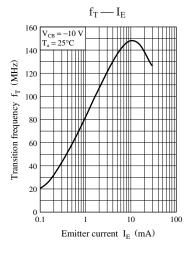


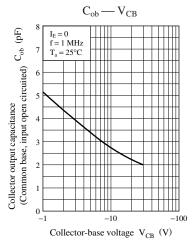


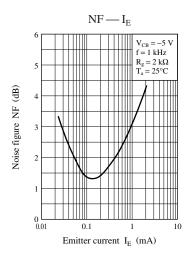


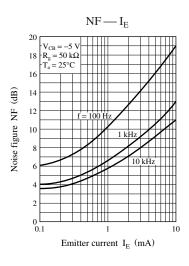


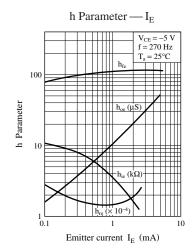


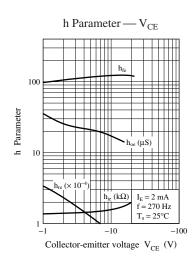












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